

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 INTRODUCTION**

In today's competitive and developing environment, the construction industry has become one of the main contributions for the global economy development. As well as in Malaysia, the construction industries are an important role in generating wealth and improving the quality of life of Malaysians. Moreover, construction industry can give impact to the development and growth of other industries including financial services, professional services and manufacturing. Nowadays, the construction industry has been highlighted in the government economic planning as the key drivers in the development of the country. Therefore, the construction industry should keep up and improve their organizational performance to remain competitive in the economic development. In addition, this study describes regarding the Lean Management concept in order to minimize the generation of waste in the Malaysian's construction industry. Thus, this study will also reveal the awareness of the contractors towards the implementation of lean management in construction industry. The introductory chapters will provide the reader a description of the study's background, problem statements, research objectives, research questions, research framework, research hypothesis, scope of study, and significant of study.

## 1.1 RESEARCH BACKGROUND

Lean management was popular and traditionally been interrelated with the manufacturing industries. Recently, many industries such as services, financial, construction and health care industry have adopted the lean principles with the aim of improving their performance and customer satisfaction. Piercy and Rich (2009) has declared that Lean as a concept comprising a set of principles, practices, tool and techniques that would improve resource utilization, quality and delivery with respect to products and services if being implemented by following a systematic approach. Howell (2001) was defined the word “lean” as “Give customer what they want, deliver it instantly with no waste”. In other word, lean is an activity of adding value for the customer, waste elimination, and continuous improvement from a standard of the activity. The successes of Lean implementation in manufacturing can be seen through Toyota. The reason is because Toyota Company had taken control of the market shares in the automobile production as the result of lean implementation.

Construction industry is unique and covers a variety ranging from the slow, certain, and simple project to quick, uncertain as well as complex project stated by Ballard and Howell (1998). Moreover, Koskela (1992) said that construction is unique in the sense of one kind of nature projects, site production and impermanent multi- organization. Recently, due to the global economic crisis and poor performance, construction projects are currently progressing slowly around the world. According to Lo et al., (2006), poor performance including time delays, cost overruns and quality defects are not unfamiliar in the construction projects. Beside of that, the poor management system in the construction project will direct and lead to many issues that would cause cost of project increases, late completion of project and low quality. These issues will finally reduce the profit of the contractor. Low and Chong (2001) have mentioned that the productivity levels within the construction industry have consistently lagged behind other sectors especially manufacturing industry. Therefore, some researchers have come out with the new initiative.

In Malaysia, the construction industry plays an important role in the development of the economic. Derrick (2011) stated that the Malaysian Construction industry represent an important aspect in the total Malaysian economy. The Malaysian construction industry is productive and generates wealth for the country by addressing social and economic needs through the provision of infrastructures and buildings that constantly contribute to the growth of the economy Hamid (2010). However, the construction industry is facing come chronic issues such as lack of quality, poor coordination, low productivity and high cost. Other than that, delay in delivering completed project also one of the main problems. The capability to finish on time is a global construction industry crisis especially in the developing country. In this competitive environment, the construction industry must compete through consistent productivity environment, more value added operations and improve the output quality.

In order to overcome the construction issues, lean construction based on lean thinking has been introduced in this construction industry. The beginning or introductions of the lean construction approach are in the early 1990's from the adoption of the lean manufacturing. According to Howell (1999), the new philosophies of lean construction that been implemented by Toyota in their manufacturing process, which now applied throughout the construction industry with the aim to smoothen the construction project and increase the contractor's profit by eliminating waste. Throughout the Lean concept, the waste elimination and value improvement in a construction project were defined. However, Ballard and Howell (2003) stated that this concept will compulsorily alter and change the traditional work practices, usually undertaken by the construction firms according to the needs and suitability in line with the objectives and principles begin in the lean construction concept itself. Other than that, the objectives of Lean Construction are at reducing waste and improving the productivity in achieving the client's requirements on the construction industry. The introduction of lean construction approach seems suited well with the current circumstances of Malaysian construction industry.

Construction management and technology are the two key drivers influencing the improvement and development within the construction industry based on Guo (2009). According to the Serpell and Alarcon (1998), there are an arising number of construction companies implementing actions to improve their projects performance by reducing all kinds of waste